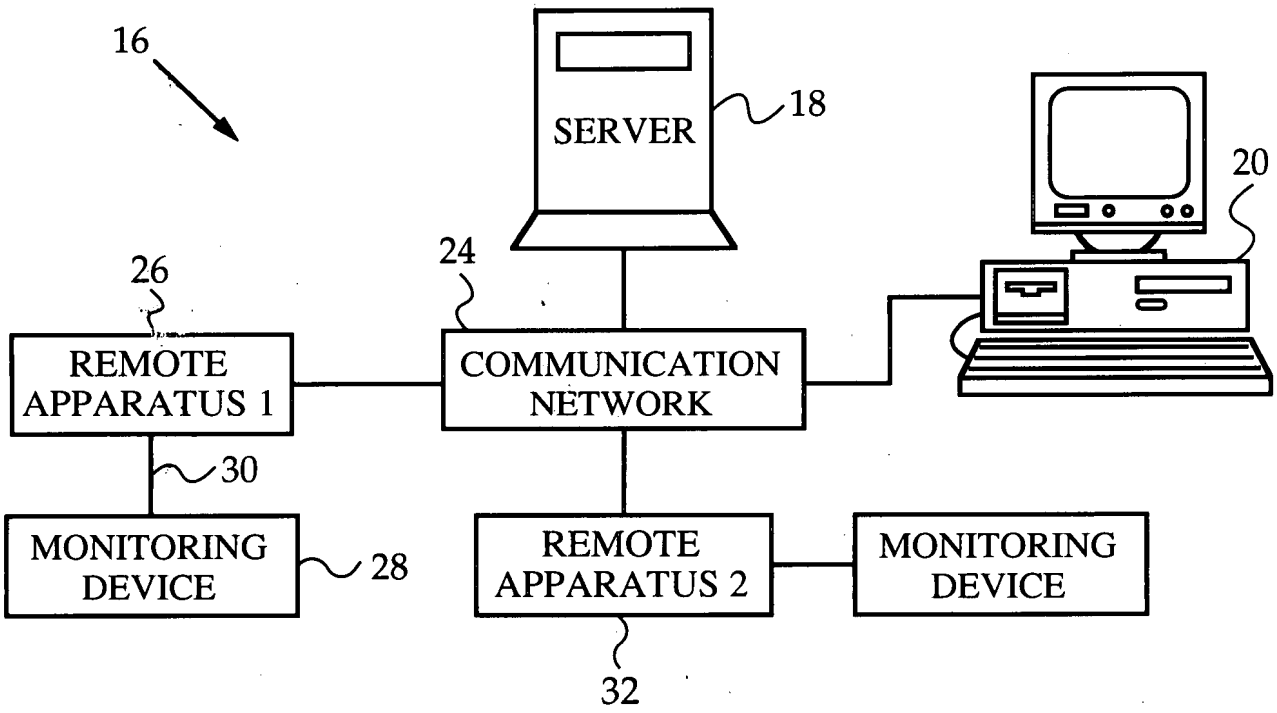
16
SERVER
18
20
24
26
REMOTE APPARATUS 1
COMMUNICATION NETWORK
30
MONITORING DEVICE
28
REMOTE APPARATUS 2
MONITORING DEVICE
32

FIG. 1

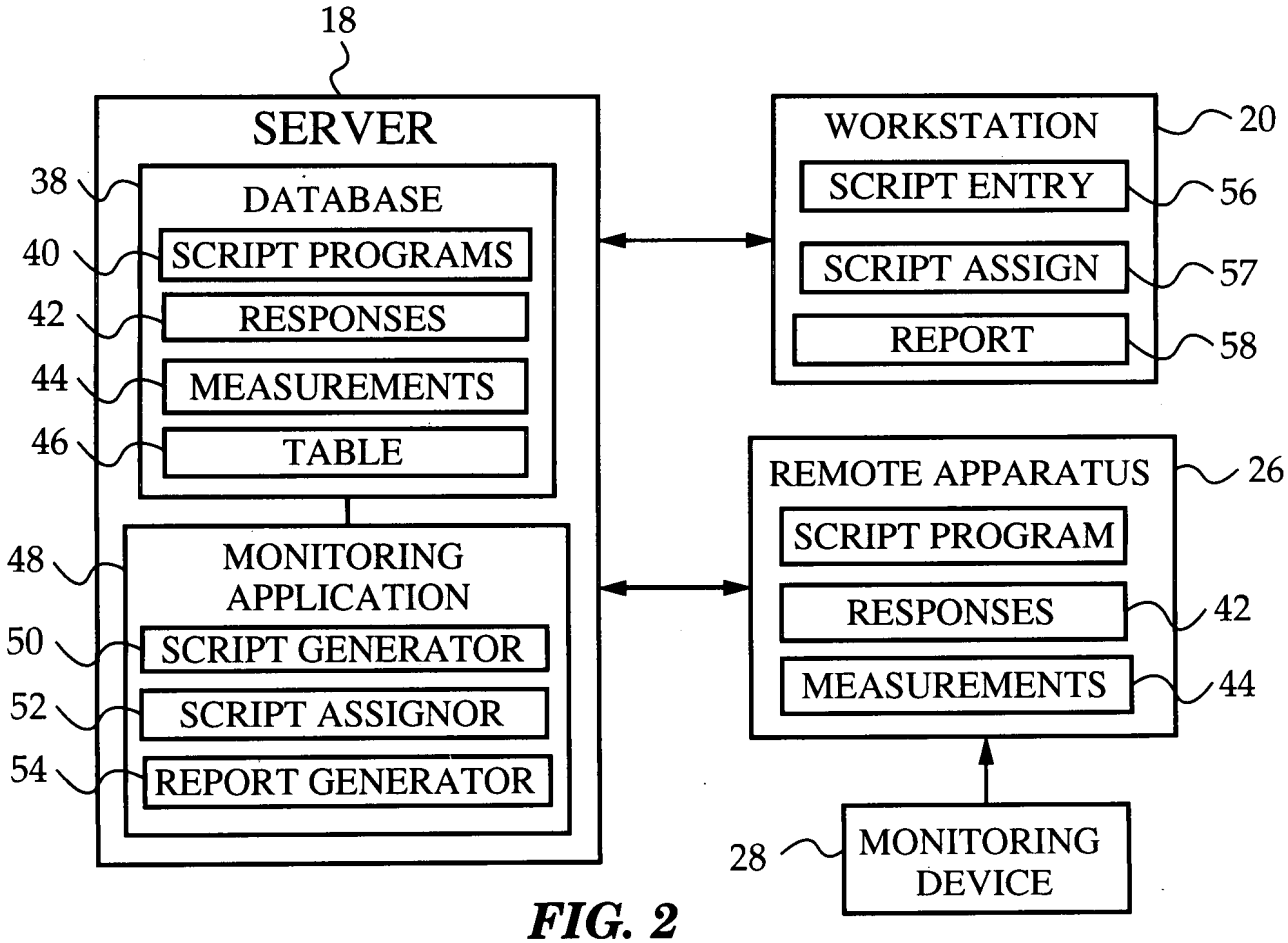
18
SERVER
38
DATABASE
40
SCRIPT PROGRAMS
42
RESPONSES
44
MEASUREMENTS
46
TABLE
48
MONITORING APPLICATION
50
SCRIPT GENERATOR
52
SCRIPT ASSIGNOR
54
REPORT GENERATOR
WORKSTATION
20
SCRIPT ENTRY
56
SCRIPT ASSIGN
57
REPORT
58
REMOTE APPARATUS
26
SCRIPT PROGRAM
RESPONSES
42
MEASUREMENTS
44
28
MONITORING DEVICE

FIG. 2

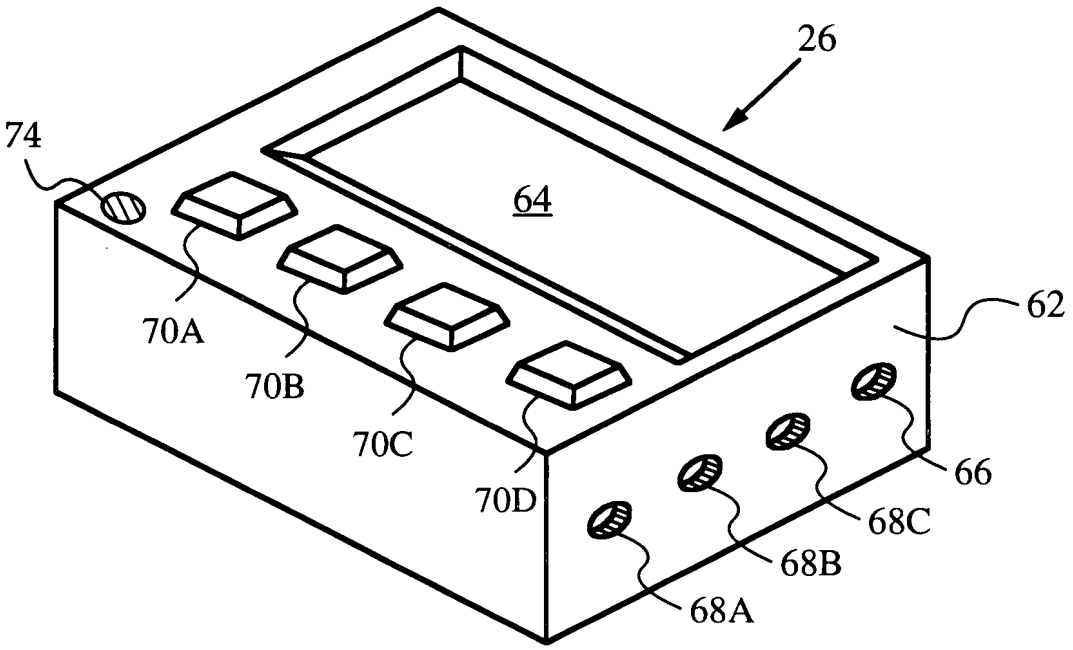
26
74
64
70A
70B
70C
70D
62
66
68C
68B
68A

FIG. 3

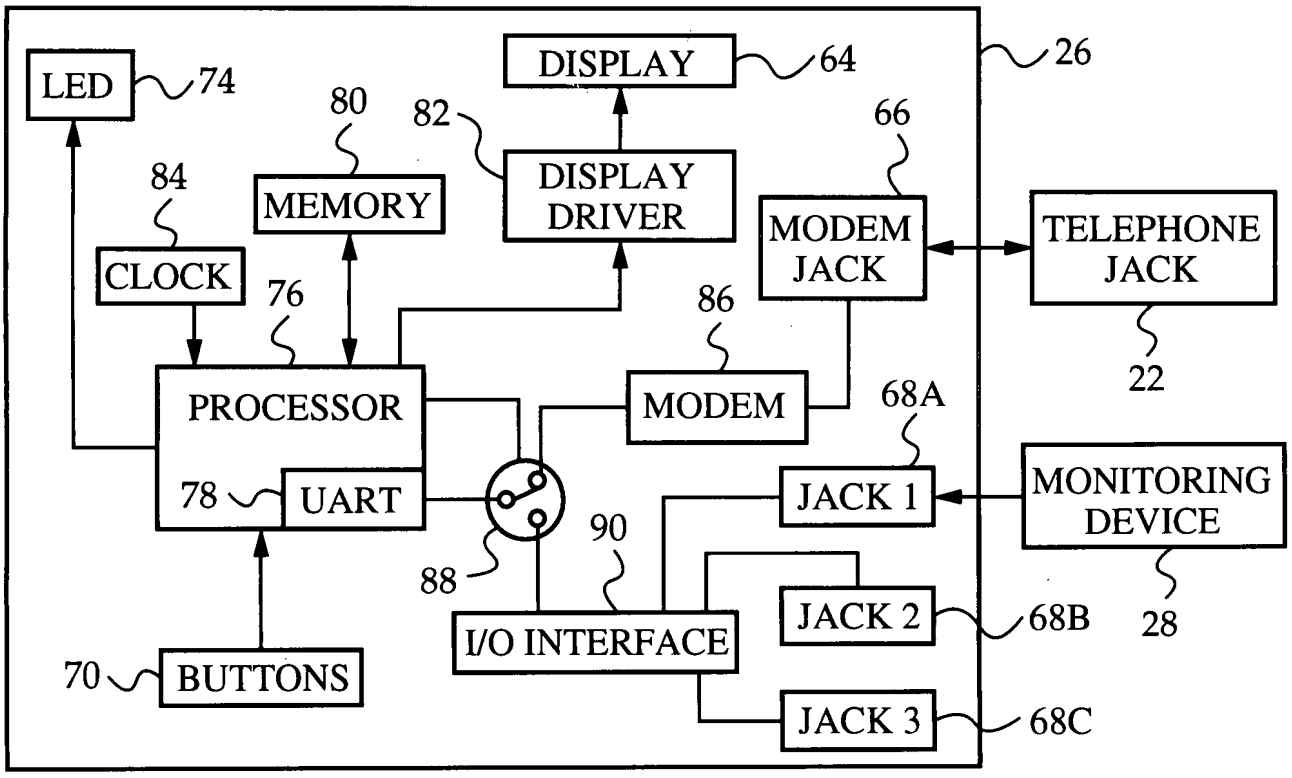
LED
74
DISPLAY
64
26
80
82
66
84
MEMORY
DISPLAY DRIVER
MODEM JACK
TELEPHONE JACK
CLOCK
76
86
22
PROCESSOR
MODEM
68A
78
UART
JACK 1
MONITORING DEVICE
90
88
JACK 2
68B
28
I/O INTERFACE
70
BUTTONS
JACK 3
68C

FIG. 4

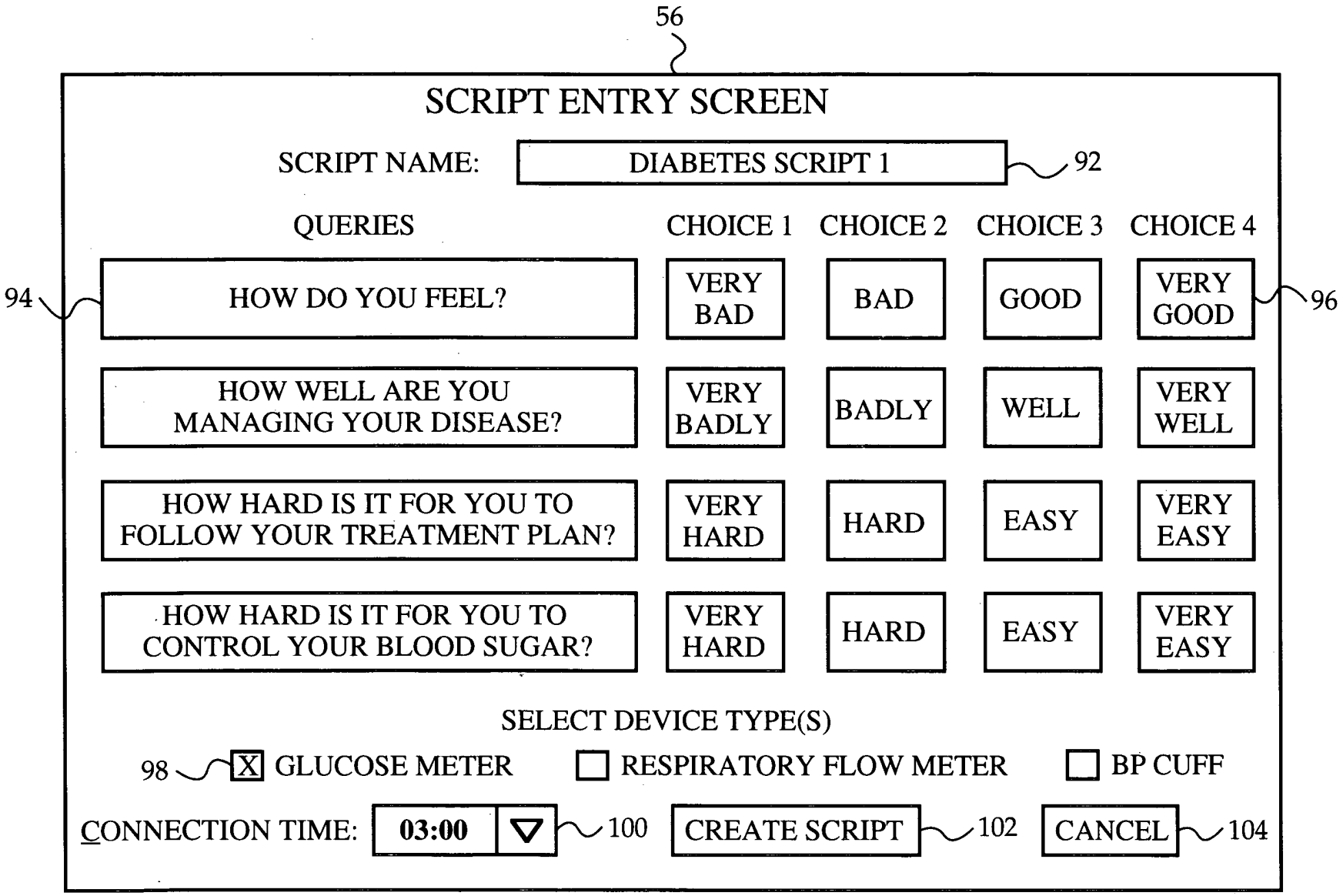
56
SCRIPT ENTRY SCREEN
SCRIPT NAME:
DIABETES SCRIPT 1
92
QUERIES
CHOICE 1
CHOICE 2
CHOICE 3
CHOICE 4
94
HOW DO YOU FEEL?
VERY BAD
BAD
GOOD
VERY GOOD
96
HOW WELL ARE YOU MANAGING YOUR DISEASE?
VERY BADLY
BADLY
WELL
VERY WELL
HOW HARD IS IT FOR YOU TO FOLLOW YOUR TREATMENT PLAN?
VERY HARD
HARD
EASY
VERY EASY
HOW HARD IS IT FOR YOU TO CONTROL YOUR BLOOD SUGAR?
VERY HARD
HARD
EASY
VERY EASY
SELECT DEVICE TYPE(S)
98
X GLUCOSE METER
RESPIRATORY FLOW METER
BP CUFF
CONNECTION TIME:
03:00
100
CREATE SCRIPT
102
CANCEL
104

FIG. 5

NUMBER: 9001 {LF}

LED: 1 {LF}

ZAP: {LF}

CLS: {LF}

DISPLAY: ANSWER QUERIES NOW?
PRESS ANY BUTTON TO START {LF}

WAIT: {LF}

CLS: {LF}

DISPLAY: HOW DO YOU FEEL?

VERY BAD BAD GOOD VERY GOOD {LF}

INPUT: OOOO {LF}

CLS: {LF}

DISPLAY: HOW WELL ARE YOU MANAGING YOUR DISEASE?
VERY WELL BADLY WELL VERY WELL {LF}

INPUT: OOOO {LF}

CLS: {LF}

DISPLAY: HOW HARD IS IT FOR YOU TO FOLLOW YOUR TREATMENT PLAN?
VERY HARD HARD EASY VERY EASY {LF}

INPUT: OOOO {LF}

CLS: {LF}

DISPLAY: HOW HARD IS IT FOR YOU TO CONTROL YOUR BLOOD SUGAR?
VERY HARD HARD EASY VERY EASY {LF}

FIG. 6A

09543471 "10027"

INPUT: OOOO {LF}

CLS: {LF}

DISPLAY: CONNECT GLUCOSE METER
AND PRESS ANY BUTTON
WHEN FINISHED {LF}

WAIT: {LF}

CLS: {LF}

DISPLAY: COLLECTING MEASUREMENTS {LF}

COLLECT: GLUCOSE_METER {LF}

CLS: {LF}

DISPLAY: CONNECT APPARATUS TO
TELEPHONE JACK AND
PRESS ANY BUTTON
WHEN FINISHED {LF}

WAIT: {LF}

LED: 0 {LF}

CLS: {LF}

DELAY: 03:00 {LF}

DISPLAY: CONNECTING TO SERVER {LF}

CONNECT: {LF}

{EOF}

FIG. 6B

2607434.1

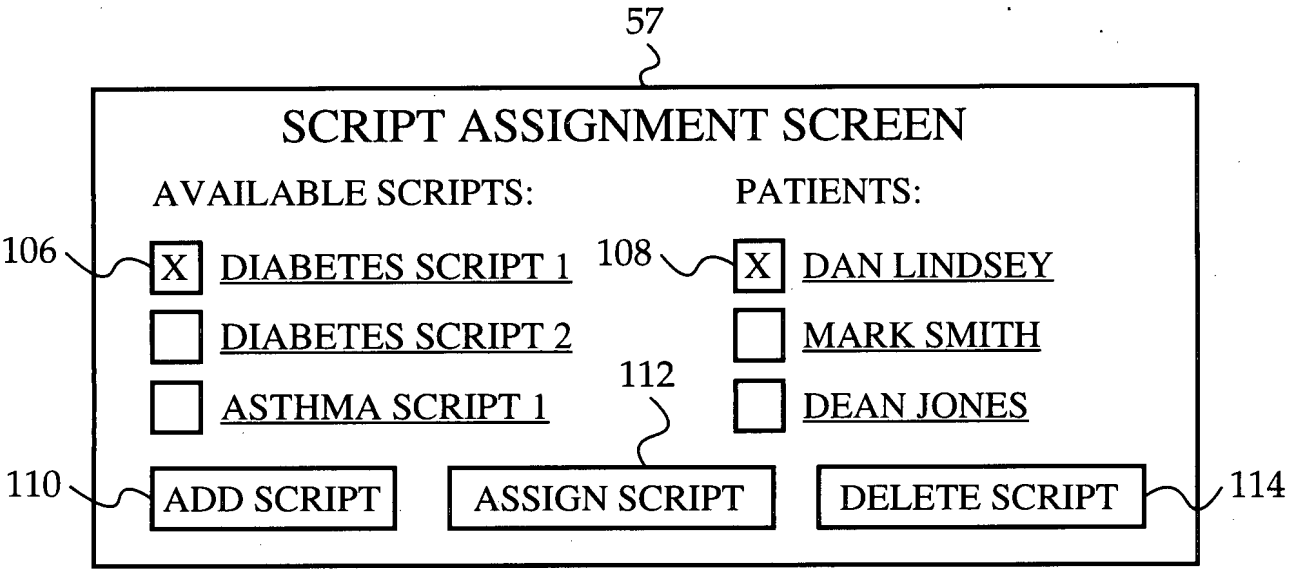

FIG. 7

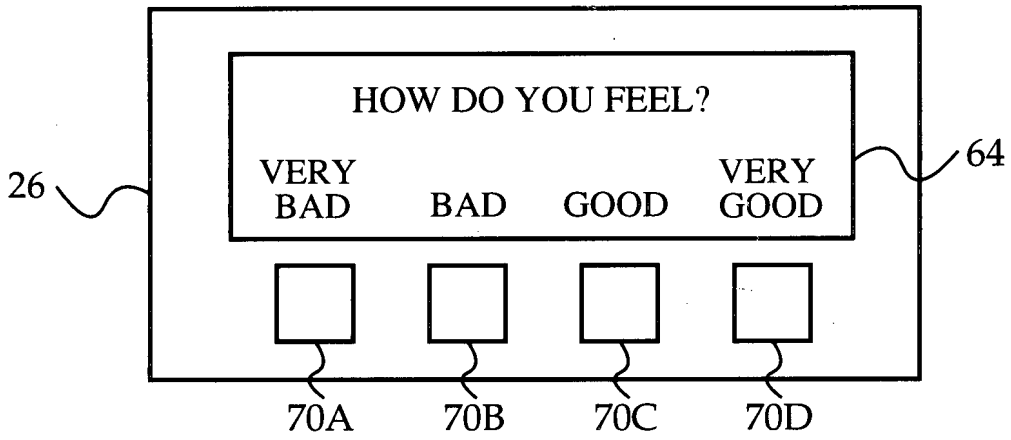

FIG. 8

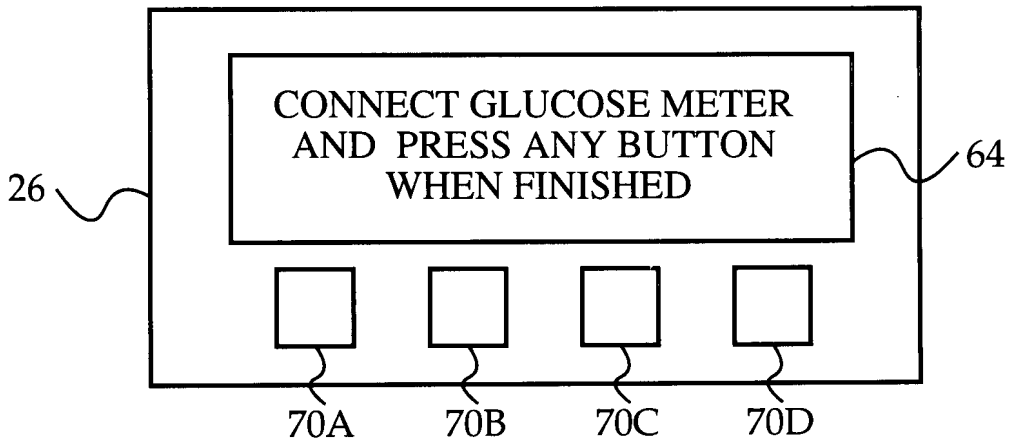

FIG. 9

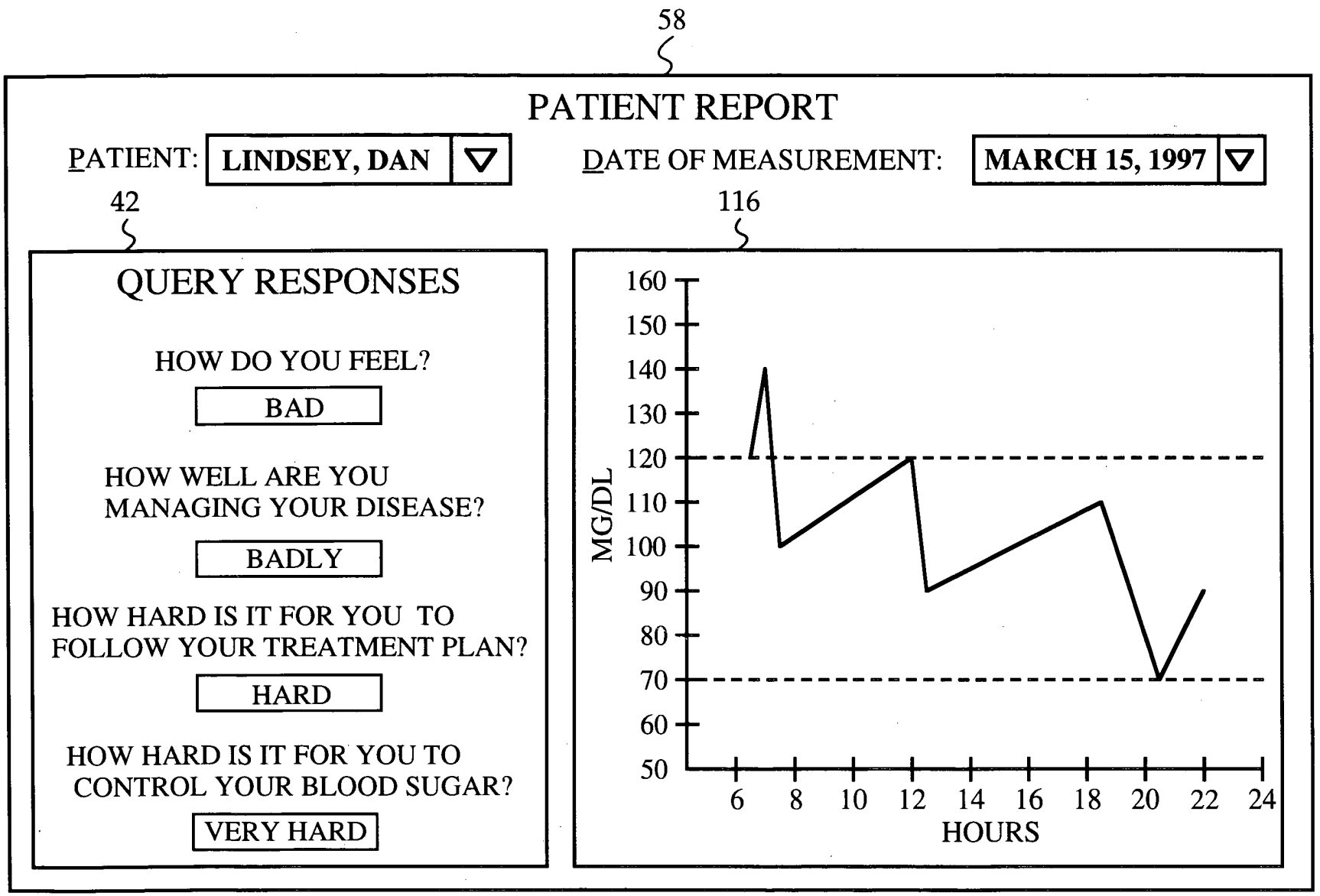
58
PATIENT REPORT
PATIENT: LINDSEY, DAN
DATE OF MEASUREMENT: MARCH 15, 1997
42
116
QUERY RESPONSES
HOW DO YOU FEEL?
BAD
HOW WELL ARE YOU MANAGING YOUR DISEASE?
BADLY
HOW HARD IS IT FOR YOU TO FOLLOW YOUR TREATMENT PLAN?
HARD
HOW HARD IS IT FOR YOU TO CONTROL YOUR BLOOD SUGAR?
VERY HARD
MG/DL
160
150
140
130
120
110
100
90
80
70
60
50
6
8
10
12
14
16
18
20
22
24
HOURS

FIG. 10

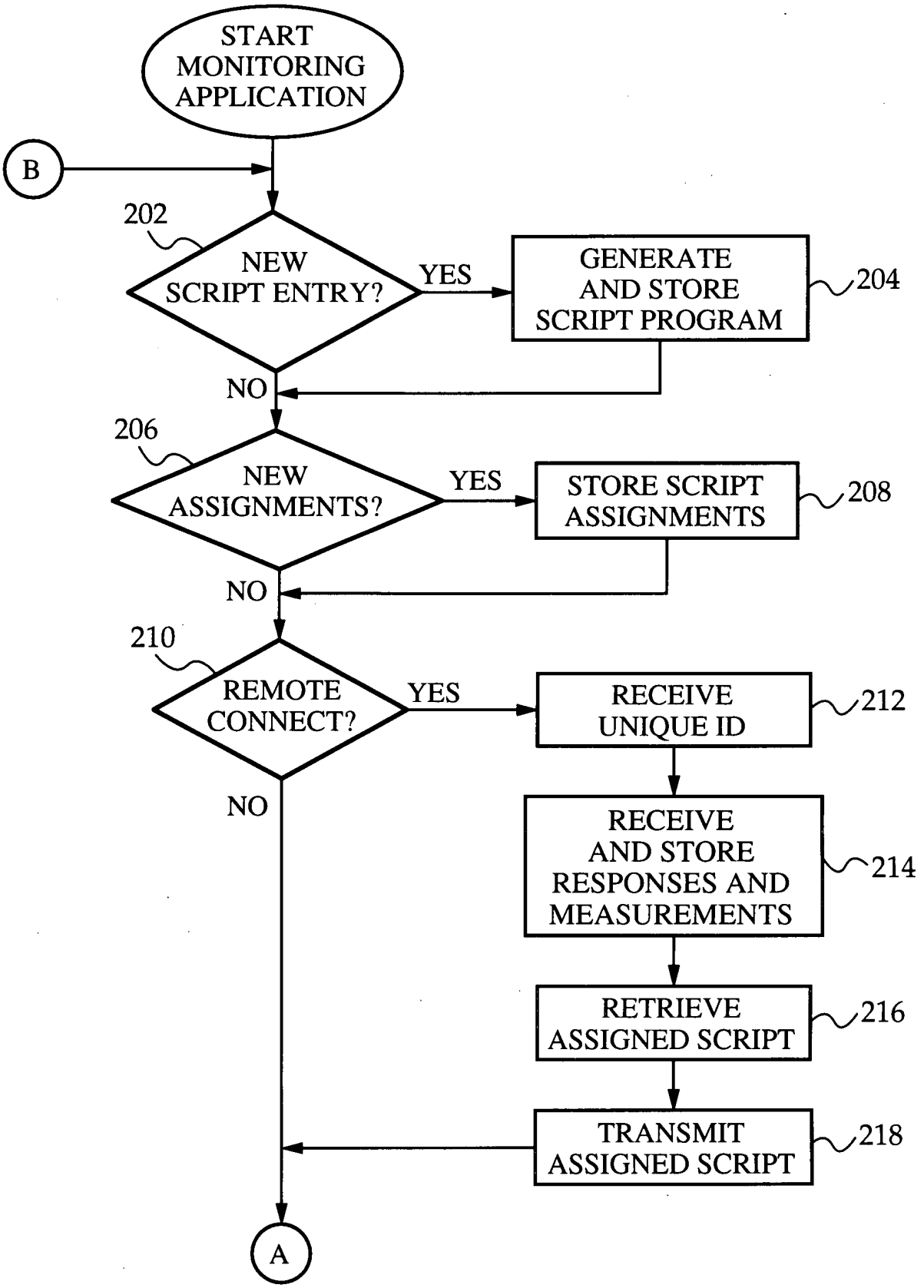
START MONITORING APPLICATION
B
202
NEW SCRIPT ENTRY?
YES
GENERATE AND STORE SCRIPT PROGRAM
204
NO
206
NEW ASSIGNMENTS?
YES
STORE SCRIPT ASSIGNMENTS
208
NO
210
REMOTE CONNECT?
YES
RECEIVE UNIQUE ID
212
NO
RECEIVE AND STORE RESPONSES AND MEASUREMENTS
214
RETRIEVE ASSIGNED SCRIPT
216
TRANSMIT ASSIGNED SCRIPT
218
A

FIG. 11A

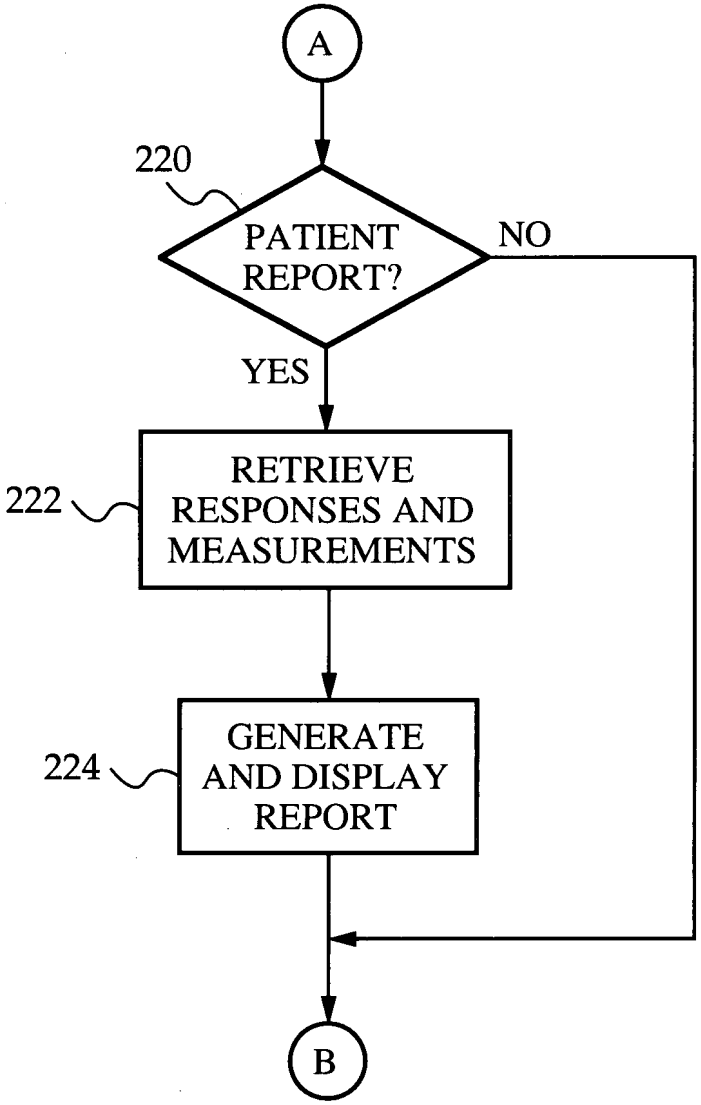

FIG. 11B

US 2007/0143160 A1

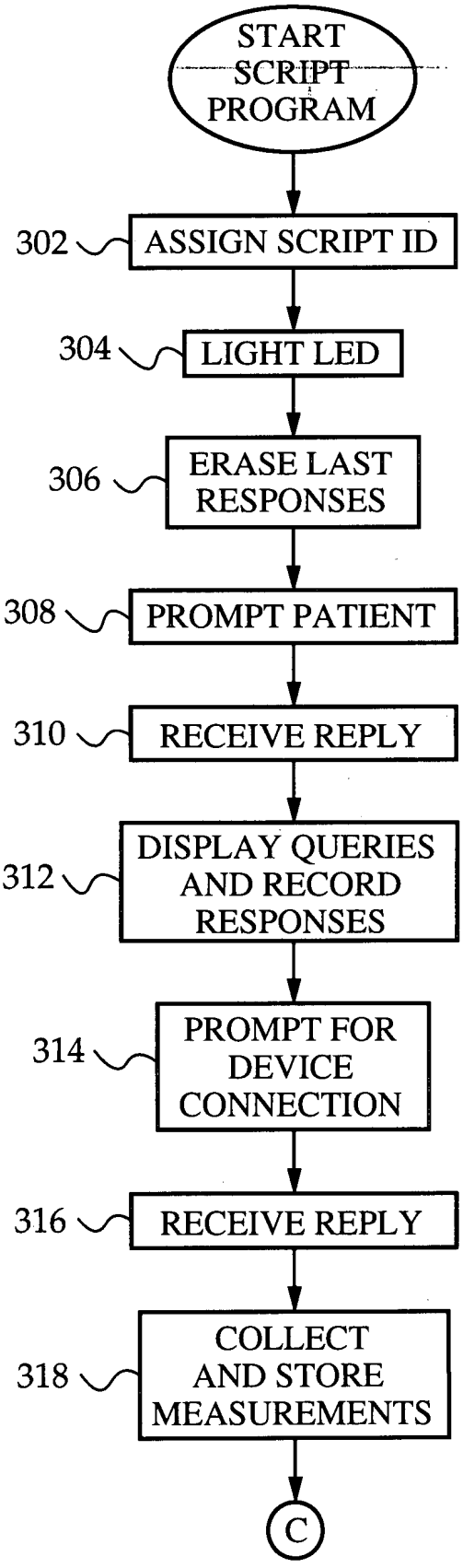
START SCRIPT PROGRAM
302
ASSIGN SCRIPT ID
304
LIGHT LED
306
ERASE LAST RESPONSES
308
PROMPT PATIENT
310
RECEIVE REPLY
312
DISPLAY QUERIES AND RECORD RESPONSES
314
PROMPT FOR DEVICE CONNECTION
316
RECEIVE REPLY
318
COLLECT AND STORE MEASUREMENTS
C

FIG. 12A

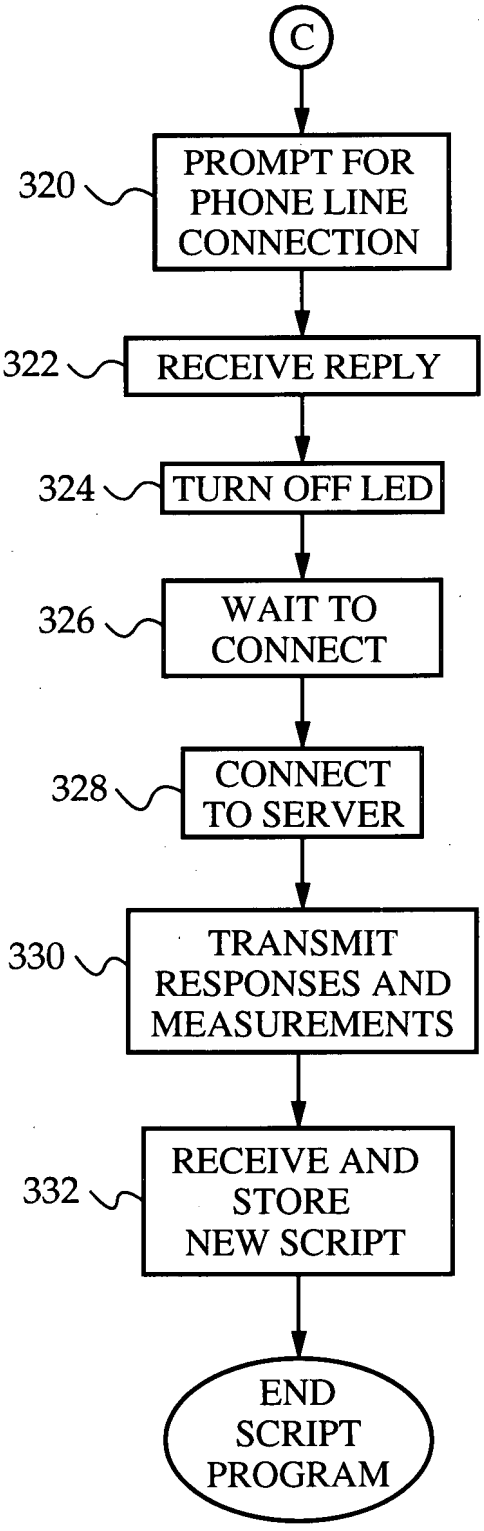

FIG. 12B

25708741 - 1 - 3 - 2 - 0 - 5 - 0 - 0

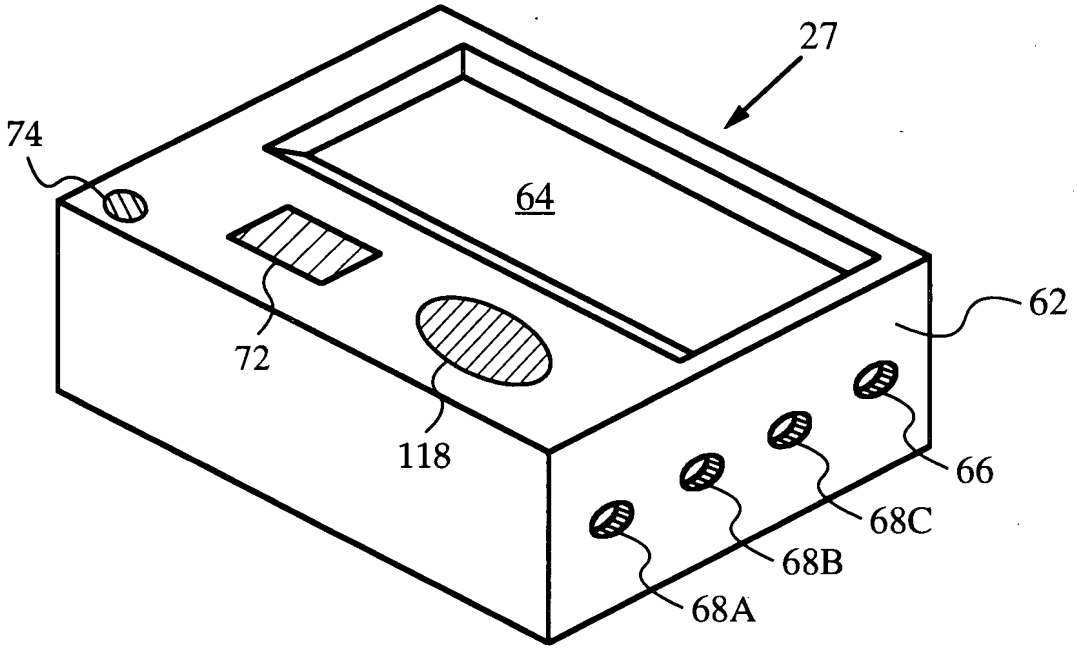

FIG. 13

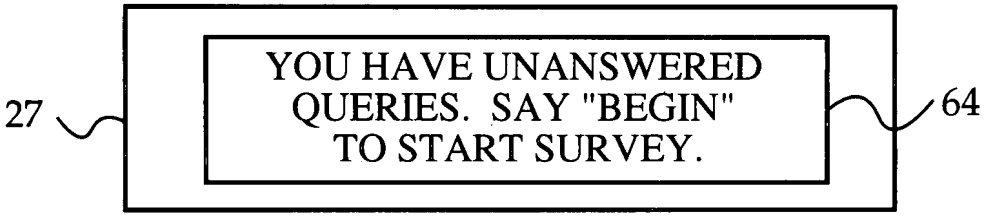

FIG. 14

Docket #: 1007-0768

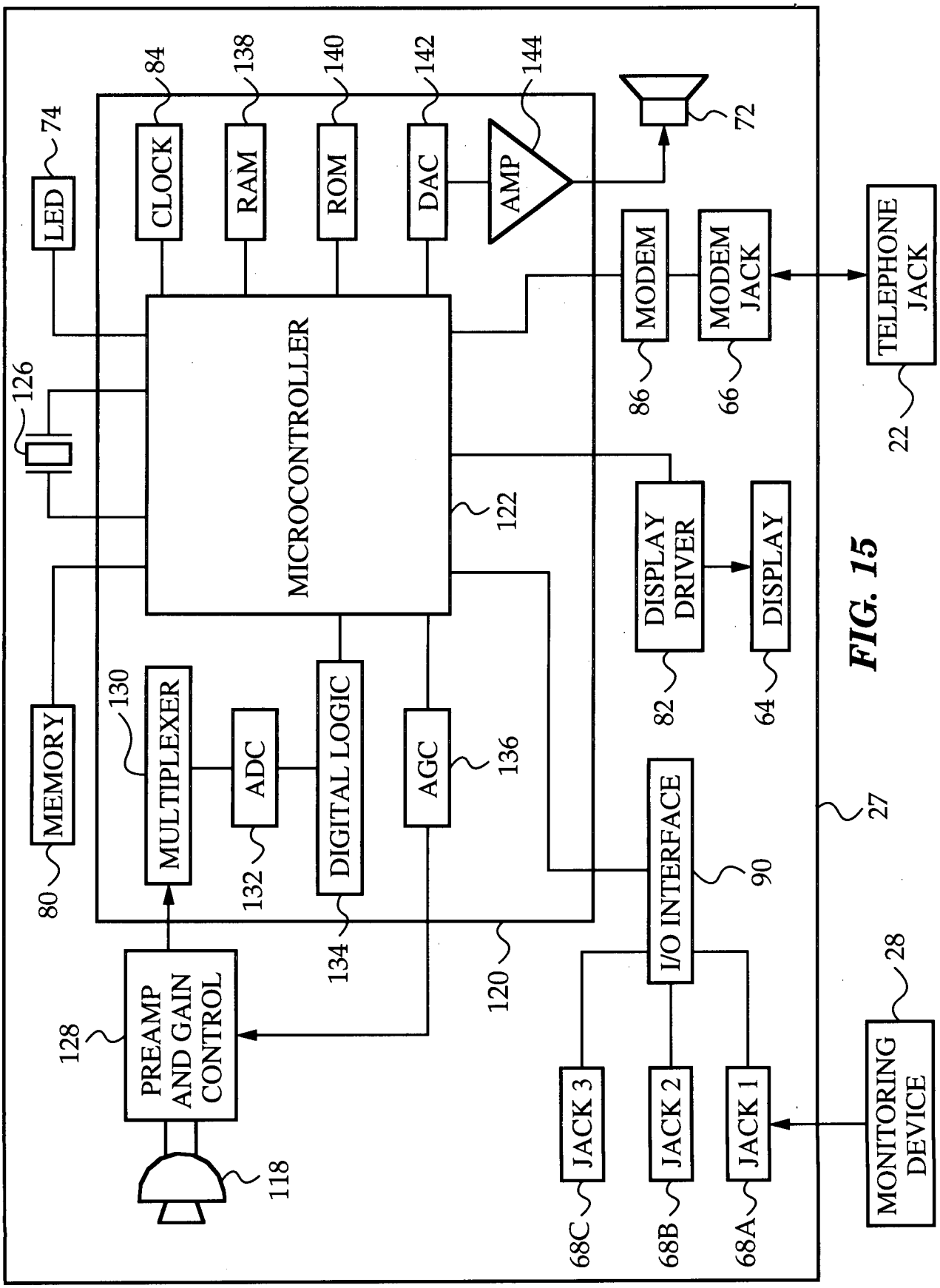
MICROCONTROLLER
122
LED
74
CLOCK
84
RAM
138
ROM
140
DAC
142
AMP
144
72
126
MODEM
86
MODEM JACK
66
TELEPHONE JACK
22
MEMORY
80
MULTIPLEXER
130
ADC
132
DIGITAL LOGIC
134
AGC
136
DISPLAY DRIVER
82
DISPLAY
64
I/O INTERFACE
90
27
PREAMP AND GAIN CONTROL
128
118
120
JACK 3
68C
JACK 2
68B
JACK 1
68A
MONITORING DEVICE
28

FIG. 15

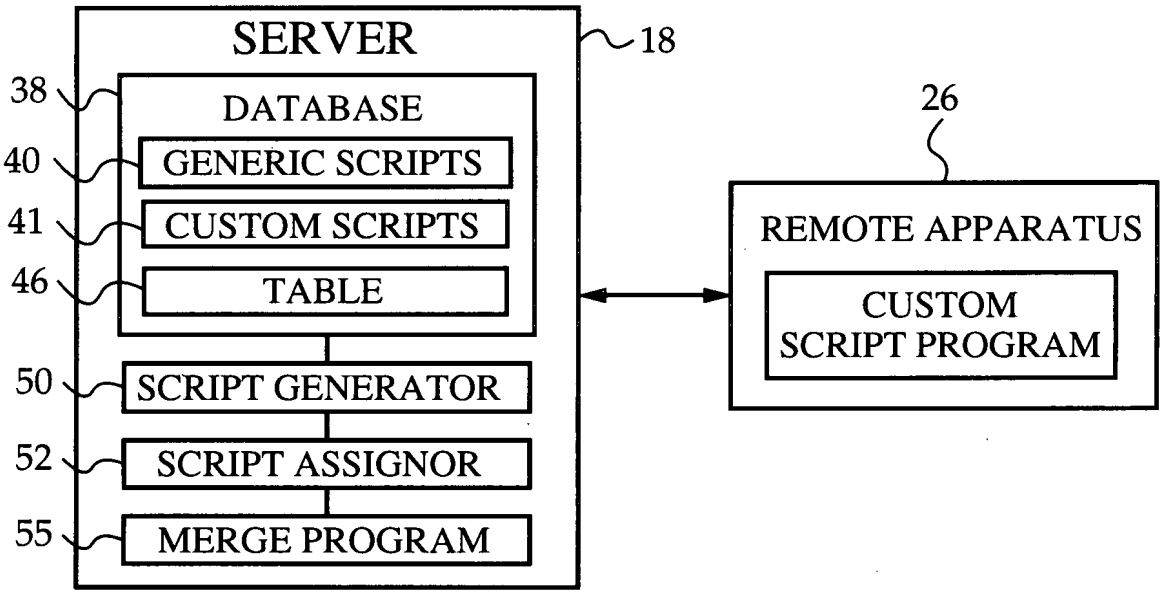

FIG. 16

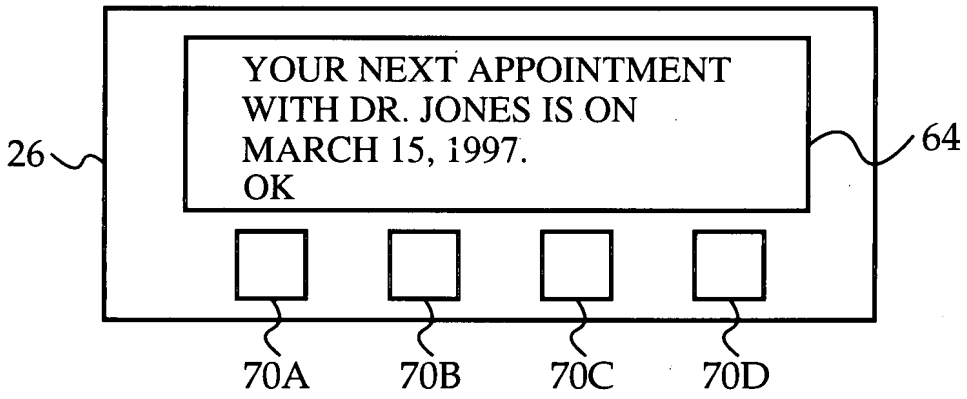

FIG. 17

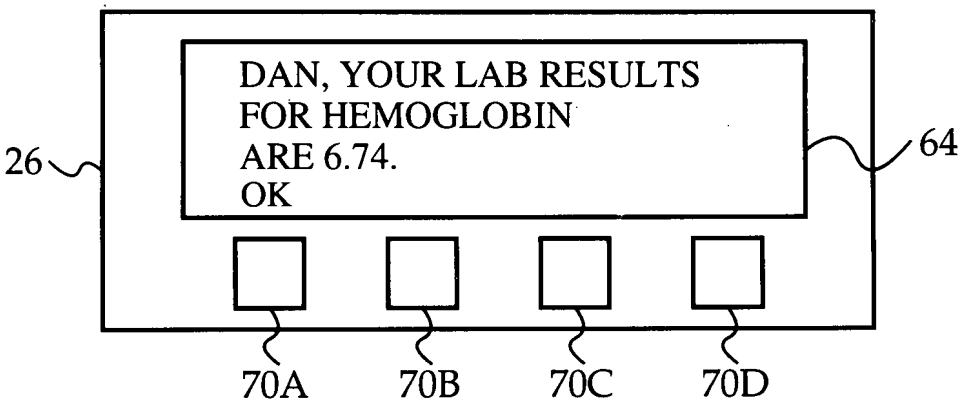

FIG. 18

26200T" THE9h680

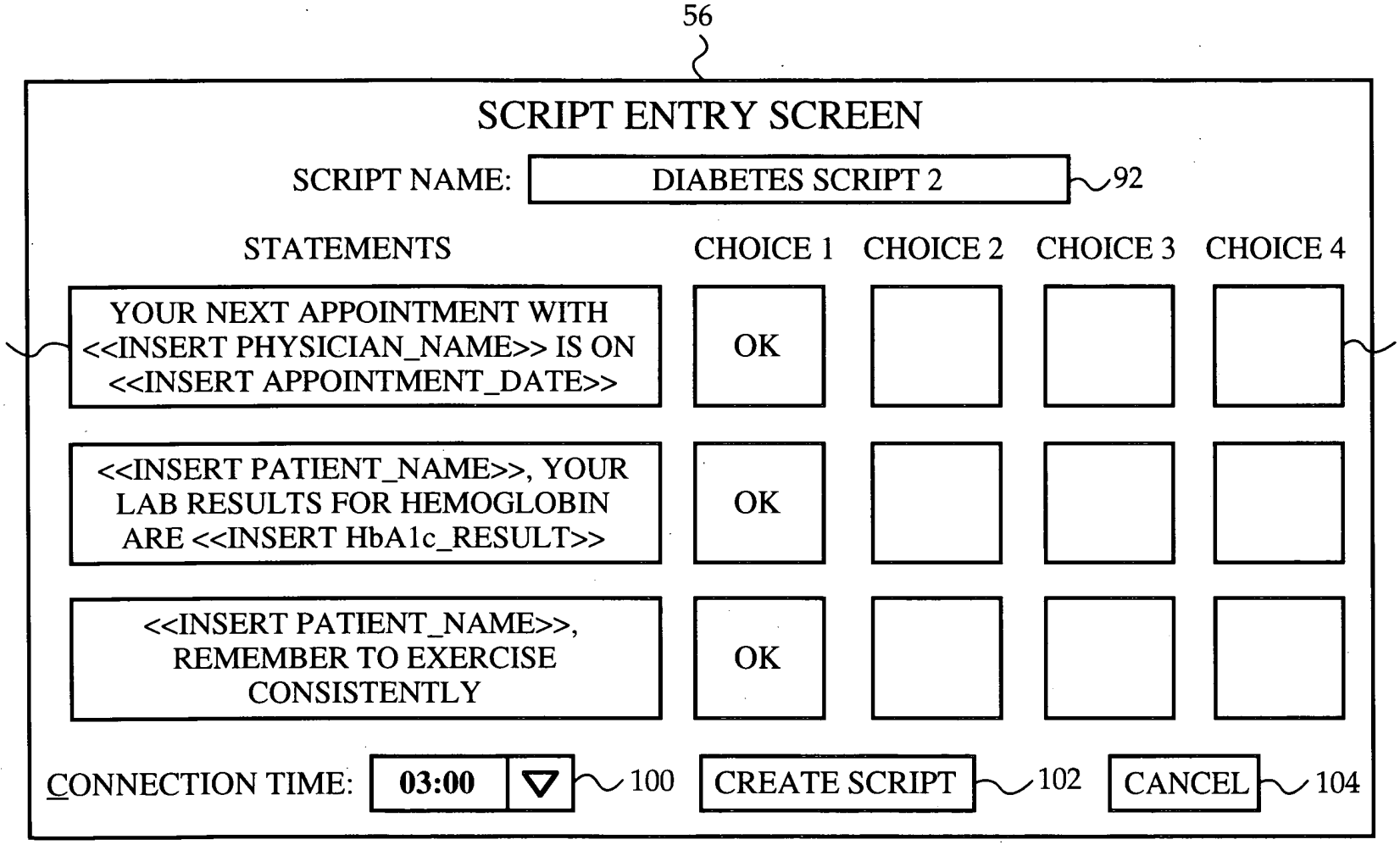

FIG. 19